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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/918,829

08/01/2001

Masahiro Uekawa

2001-1018A

4417

513

7590

12/31/2002

WENDEROTH, LIND & PONACK, L.L.P.  
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SUITE 800  
WASHINGTON, DC 20006-1021

EXAMINER

DUVERNE, JEAN F

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/918,829**

Applicant(s)  
**UEKAWA ETAL**

Examiner  
**Jean Duverne**

Art Unit  
**2839**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Sep 26, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 20) ☐ Other:

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***Claim Rejections - 35 U.S.C. 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

1. Claims 17-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Ford (US patent 6,272,272).

Regarding claims 1, 3-8, Ford's device discloses an optical device an optical device (fig. 3) including supporting substrate at 38 having groove surface with a multiple grooves extending to the edge to receive the fibers (fig. 10), an optical substrate having a first surface on which lens element (36) is formed, a second surface and a first projecting part at 64 disposed on the second surface and the lens element being aligned with the optical element. The grooves are in V-shaped.

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 2, 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (US patent 6,272,272) in view of Tabuchi (US patent 5,481,629).

In regard to claim 2, Ford's device discloses the aforementioned limitations, but fails to explicitly disclose the use of the photolithography. Tabuchi's device discloses the substrate with the grooves and fiber using the photolithography (see col. 4). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the photolithography features such as the one taught in Tabuchi's structure for improving the projection feature in Ford's device.

In regard to claims 9-16, In regard to claims 2, Ford's device discloses the aforementioned limitations, but fails to explicitly disclose the etching process with anisotropic etchant using silicon or other similar material commonly used. Tabuchi's device discloses the etching process with anisotropic etchant using silicon (see col. 4). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the etching process with anisotropic etchant such as the one taught in Tabuchi's structure to system design and requirement.

***Allowable Subject Matter***

3. Any inquiry concerning this communication or earlier communications from the examiner

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should be directed to Jean Duverne whose telephone number is (703) 305 - 0297 . The examiner can normally be reached from 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (703)308-2710. The fax phone number for this Group is (703) 308 - 7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

JFD

Jean F. Duverne

December 28, 2002

Patent Examiner, Art Unit 2839

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## **DETAILED ACTION**

### ***Claim Rejections - 35 U.S.C. 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

1. Claims 1, 3-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ford (US patent 6,272,272).

Ford's device discloses an optical device an optical device (fig. 3) including supporting substrate at 38 having groove surface with a multiple grooves extending to the edge to receive the fibers (fig. 10), an optical substrate having a first surface on which lens element (36) is formed, a second surface and a first projecting part at 64 disposed on the second surface and the lens element being aligned with the optical element. The grooves are in V-shaped.

### ***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford (US patent 6,272,272) in view of Tabuchi (US patent 5,481,629).

In regard to claim 2, Ford's device discloses the aforementioned limitations, but fails to explicitly disclose the use of the photolithography. Tabuchi's device discloses the substrate with the grooves and fiber using the photolithography (see col. 4). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the photolithography features such as the one taught in Tabuchi's structure for improving the projection features in Ford's device.

In regard to claims 9-16, In regard to claims 2, Ford's device discloses the aforementioned limitations, but fails to explicitly disclose the etching process with anisotropic etchant using silicon or other similar material commonly used. Tabuchi's device discloses the etching process with anisotropic etchant using silicon (see col. 4). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the etching process with anisotropic etchant such as the one taught in Tabuchi's structure to system design and requirement.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duverne whose telephone number is (703) 305 - 0297 . The examiner

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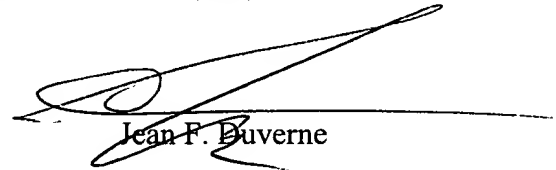
can normally be reached from 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on (703)308-2710. The fax phone number for this Group is (703) 308 - 7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

JFD

December 30, 2002

A handwritten signature in black ink, appearing to read "Jean F. Duverne", is written over a horizontal line.

Patent Examiner, Art Unit 2839